**Docket 85184LMB**
**Customer No. 01333**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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| In re Application of | Group Art Unit: 1752 |
| Peter T. Aylward, et al | Examiner: Amanda C. Walke |
| MATERIALS AND METHOD FOR BACKPRINTING IMAGING MEDIA | |
| Serial No. 10/827,398 | |
| Filed 19 April 2004 | |

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

**APPEAL BRIEF PURSUANT TO 37 C.F.R. 41.37 and 35 U.S.C. 134**

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## APPELLANT'S BRIEF ON APPEAL

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-25 which was contained in the Office Action mailed 09/24/2007.

A timely Notice of Appeal was filed 12/21/2007.

## Real Party In Interest

As indicated above in the caption of the Brief, the Eastman Kodak Company is the real party in interest.

## Related Appeals And Interferences

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

## Status Of The Claims

Claims 1-25 are pending in the application.

Claims 1-25 are being appealed.

Appendix I provides a clean, double-spaced copy of the claims on appeal.

## Status Of Amendments

A Notice of Appeal was filed on December 21, 2007, subsequent to the Final Rejection, dated September 24, 2007, not allowing the claims.

## Summary of Claimed Subject Matter

The present invention relates to a method for placing indicia on the non-image side of a support for an imaging element (pg. 12, lines 6 – 8; pg. 26, line 13 – pg. 60, line 24) comprising providing a support (pg. 11, line 14 – pg. 25, line 26), wherein said imaging support comprises an image side (pg. 1, line 11; pg. 4, lines 18-19; pg. 62, line 11 (Sample 2)) having at least one imaging layer (pg. 25, lines 14-16) and a non-image side (pg. 4, lines 19-22); contacting said non-image side of said support with a thermal transfer dye donating sheet (pg. 6, lines 22 – 29; pg. 7, line – pg. 12, line 5) ; applying energy in a pattern (pg. 6, lines 14-19) to said thermal transfer dye donating sheet; transferring said pattern (pg. 5, lines 6-

10) to said non-image side of said support to form indicia (pg. 5, line 21 – pg. 6, line 3), and applying an environmental protection laminate layer to said indicia on said non-image side of said support (pg. 6, lines 20-21, pg. 10, line 26-pg. 12, line 26, Sample 2, pg. 62).

## Grounds of Rejection to be Reviewed on Appeal

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. The rejection of Claims 1-25 as being obvious over Campbell (5,612,283) in view of Chang (6,476,842) and Jones (2003/0038174) under 35 U.S.C. 103(a).

## Arguments

### Rejection Of Claims 1-25 Under 35 U.S.C. §103(a):

The Examiner has rejected Claims 1-25 under 35 U.S.C. 103(a) as being unpatentable over Campbell (5,612,283) in view of Chang (6,476,842) and Jones (2003/0038174), stating:

> "Campbell discloses a dye-receiving element for thermal dye transfer comprising a support having on the front side thereof, in order, a biaxially-oriented composite film laminated thereto and a dye image-receiving layer, the composite film comprising a microvoided thermoplastic core layer and at least one substantially void-free thermoplastic surface layer, the support having on the back side thereof a biaxially-oriented transparent film laminated thereto which has a light transmission of at least 70%, the ratio of thickness of the transparent film to the composite film being from about 0.45 to about 0.75. Due to their relatively low cost and good appearance, composite films are generally used and referred to in the trade as "packaging films." The low specific gravity of microvoided packaging films (preferably between 0.3-0.7 g/cm.sup.3) produces dye-receivers that are very conformable and results in low mottle-index values of thermal prints, these microvoided packaging films also are very insulating and produce dye-receiver prints of high dye density at low energy levels, the nonvoided skin produces receivers of high gloss and helps to promote good contact between the dye-receiving layer and the dye-donor film. This also enhances print uniformity and efficient

dye transfer, and, in products made by a typical extrusion lamination process, back printing labels, water marks and logos are applied directly to the back side of the paper support stock with inks applied by a gravure printing process, making it desirable to have such "back printing" indicia be visible, however, the reference is not specific as to the method of printing the indicia.

Chang discloses a method of printing indicia employing a thermal dye transfer to a substrate (column 3, line 61-column 4, line 8).

Given the teachings of the references, it would have been obvious to one of ordinary skill in the art to prepare-the material of Campbell choosing to employ the improved method of forming an indicia taught by Chang with reasonable expectation of achieving a support having good light transmission.

Neither reference teaches the addition of a protective overcoat formed over the indicia. Jones teaches that it is advantageous to provide an overcoat on the layer containing the indicia after being printed as to protect it and prevent it from bleeding ([0029]).

Given the teachings of the reference, it would have been obvious to one of ordinary skill in the art to prepare the material of Campbell in view of Chang choosing to employ a protective layer after the indicia is printed."

Campbell discloses a dye-receiving element for thermal dye transfer comprising a support having on the front side thereof, in order, a biaxially-oriented composite film laminated thereto and a dye image-receiving layer. The composite film comprises a microvoided thermoplastic core layer and at least one substantially void-free thermoplastic surface layer, the support having on the back side thereof a biaxially-oriented transparent film laminated thereto which has a light transmission of at least 70%, the ratio of thickness of the transparent film to the composite film being from about 0.45 to about 0. 75.

Chang discloses thermal printing improvements which relate to print energy absorbers, arranged so as not to alter printed characteristics of colorant, and in which pre-heaters lessen the amount of print energy necessary to affect printing. D2T2 printing with a laser print energy source is disclosed.

Jones discloses an identification card prepared by attaching an antenna and integrated circuit chip onto a core layer of polyolefin, attaching a bottom sheet to the core

layer thus encasing the antenna and integrated circuit chip, providing an image-receiving layer on one or both outer surfaces of the resulting sandwich, and laminating a protective layer or layers over the image-receiving layer(s).

The present invention relates to a method for placing indicia on the non-image side of a support for an imaging element comprising providing a support having an image side with at least one imaging layer and a non-image side, contacting the non-image side of the support with a thermal transfer dye donating sheet; applying energy in a pattern, transferring the pattern to the non-image side of the support to form indicia, and applying an environmental protection laminate layer to the indicia on the non-image side of the support.

To establish a prima facia case of obviousness requires, first, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combined) must teach or suggest all the claim limitations. The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

Campbell mentions thermal printing, but only to impart an image to the dye image-receiving layer on the front-side dye receiving element, not the non-image side of the support, which is lacking a dye image-receiving layer. (Abstract ("*A dye-receiving element for thermal dye transfer comprising a support having on the front side thereof, in order, a biaxially-oriented composite film laminated thereto and a dye image-receiving layer,*"); col. 2, lines 2-12 ("*..a dye-receiving element for thermal dye transfer comprising a support having on the front side thereof, in order, a biaxially-oriented composite film laminated thereto and a dye image-receiving layer, the composite film comprising a microvoided thermoplastic core layer and at least one substantially void-free thermoplastic surface layer, the support having on the back side thereof a biaxially-oriented transparent film laminated thereto...*"). Campbell, col.2, lines 17-21, indicates back printing labels, water marks and logos are applied directly to the back side of the paper support stock with inks applied by a gravure printing process, but fails to mention back printing via a thermal transfer donating sheet which, upon patterned application of energy, provides dye to a substrate which dye then forms a pattern on the substrate.

Campbell fails to teach thermal transfer printing on the backside of a support, absent a dye receiving layer on the backside of the support. Campbell also fails to teach thermal transfer printing on the non-image side of the element and fails to disclose the application of an environmental protective layer limited to the area covered by the indicia. Chang discloses thermal transfer printing from a donor to a receiver substrate, but fails to teach the use of an environmental protection layer or application of the protection layer to indicia printed to a surface other than a receiver layer. Jones, at [0022] – [0024], discusses the use of a protective overcoat, but the overcoat is placed over an image receiving layer. The present invention describes indicia placed on a surface of an imaging element, which surface is not a dye-receiving layer. (See pg. 5, lines 6-10 ("*While typical thermal transfer processes require a dye receiving layer to provide a good stable image, the advantage of this invention is that the dye transfer indicia may be transferred directly to the backside of the substrate, that is, the non-image side of the imaging element for use in the present invention, without a special dye receiving layer.*")) The references, alone and in combination, fail to teach the application of an environmental protection layer to indicia, applied by thermal dye transfer, to the back-side of an imaging element, which backside is not a dye receiving layer.

The references, alone and in combination, provide no reasonable expectation of success of printing on the backside of an imaging element, which backside does not bear a special image receiving layer. One of ordinary skill in the art would not learn from the references that indicia could be thermally transferred to a simple flange layer. Elimination of a specials backside receiving layer reduces the cost of the imaging element. There are also additional advantages. For example, the indicia may be added to the imaging element at a variety of points – by the manufacturer, by the photofinisher, and even by the consumer. The indicia may also be applied to a variety of imaging elements. For example, the indicia may be applied to the back of a silver halide photograph or an inkjet print. See pg. 3, line 29 – pg. 4, line 6. The references fail to provide any disclosure relating to thermally transferred protective layers covering indicia placed by thermal transfer donor directly to a simple flange layer on the non-image side of the support. See pg. 64, lines7-9.

Finally, the prior art references, alone or when combined, fail to teach or suggest all the claim limitations. The references fail to disclose the application of an environmental protection laminate layer to the indicia or the indicia alone on the non-image side of a support.

The present invention also provides a surprising result. As can be seen from the data in Table 1 on pg. 64 of the specification as originally filed, the performance of an ink

that is under a protection layer shows no loss in dye density before or after exposure to extremes of pH, as would be encountered during the development process of a photographic imaging element bearing an imaging layer of the image side of the element. In the case of sample 2, that has the indicia transferred to the back side of the element and then overcoated with the protective layer, there is no observable loss in dye density to either high or low PH conditions encountered in the development of photographic elements, even though the indicia are not applied to an image receiving layer. Sample 3, without the protection layer, experiences some dye density loss when exposed to different pH conditions.

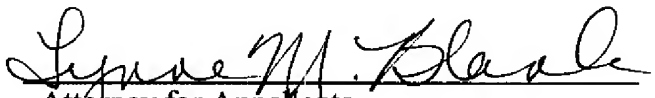
## Summary

In summary, neither the Campbell, Chang nor Jones references provide the suggestion or motivation, either in combination or alone, to modify the references or to combine reference teachings to produce the method for placing a protective layer over indicia on the dye-receiving layer-free, non-image side of a support for an imaging element using a thermal transfer dye donating sheet of the presently claimed invention, provide any reasonable expectation of success, and teach or suggest all the claim limitations. As a result, the Applicants believe that the present invention is not obvious in light of the references.

## Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1-25.

Respectfully submitted,



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Enclosures
If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

## Appendix I - Claims on Appeal

1. A method for placing indicia on the non-image side of a support for an imaging element comprising providing a support, wherein said imaging support comprises an image side having at least one imaging layer and a non-image side; contacting said non-image side of said support with a thermal transfer dye donating sheet; applying energy in a pattern to said thermal transfer dye donating sheet; and transferring said pattern to said non-image side of said support to form indicia, and applying an environmental protection laminate layer to said indicia on said non-image side of said support.

2. The method of claim 1 wherein said thermal transfer dye donating sheet comprises at least one area containing dyes and at least one environmental protection laminate area.

3. The method of claim 2 wherein said environmental protection laminate area comprises ultraviolet absorbing materials.

4. The method of Claim 3 wherein said ultraviolet absorbing materials is at least one member selected from the group consisting of ultraviolet absorbing dyes, ultraviolet absorbing pigments, ZnO and TiO2.

5. The method of claim 2 wherein said environmental protection laminate area provides protection from photochemical materials.

6. The method of claim 5 wherein said photochemical material protection laminate area comprises at least one hydrophobic polymer.

7. The method of claim 6 wherein said hydrophobic polymer comprise at least one member selected from the group consisting of acrylate, acrylic, polystyrene, vinyl and copolymers thereof.

8. The method of Claim 6 wherein said hydrophobic polymer comprises a blend of polyvinyl acetal and polyvinyl butyral.

9. The method of Claim 5 wherein said photochemical material protection laminate area comprises colloid silica and UV absorbing material

10. The method of claim 2 wherein said environmental protection laminate area comprises abrasion protection materials.

11. The method of Claim 10 wherein said abrasion protection materials comprise at least one material selected from the group consisting of silicas, microbeads, slip agents and fluoropolymers.

12. The method of claim 1 wherein said imaging support comprises paper.

13. The method of claim 12 wherein said paper comprises resin coated paper.

14. The method of claim 12 wherein said paper further comprises at least one biaxially oriented, voided sheet.

15. The method of claim 1 wherein said imaging support comprises a closed cell foam core sheet and adhered thereto an upper and lower polymer flange sheet, and wherein said closed cell foam core sheet comprises an expanded polymer and a blowing agent.

16. The method of claim 15 wherein at least one of said upper and lower polymer flange sheet comprises a biaxially oriented, voided sheet.

17. The method of claim 1 wherein said indicia comprise at least one member selected from the group consisting of letters, pictures, numbers, symbols, pattern and words.

18. The method of claim 1 wherein said energy comprises heat energy.

19. The method of claim 1 wherein said energy comprises laser energy.

20. The method of claim 1 wherein said imaging layer comprises photosensitive silver halide.

21. The method of claim 1 wherein said imaging layer comprises an inkjet imaging layer.

22. The method of claim 1 wherein said imaging layer comprises a thermal imaging layer.

23. The method of claim 1 wherein said imaging layer comprises an electrophotographic imaging layer.

24. The method of claim 1 wherein said support further comprises functional layers.

25. The method of claim 24 wherein said functional layers comprise at least one member selected from the group consisting of antistatic layer, release layer, friction control layer, dye receiving layer.

## Appendix II - Evidence

None

## Appendix III – Related Proceedings

None